

Appln No. 09/603,812

Amdt date May 27, 2004

Reply to Office action of January 15, 2004

REMARKS/ARGUMENTS

Claims 1 to 8 and 10 to 13 are pending in this application. Claim 13 has been amended to respond to the Examiner's rejection under 35 U.S.C. §112, second paragraph. Specifically, Applicants have amended claim 13 to more clearly recite a "battery", thereby obviating this rejection.

At the outset, Applicants would like to direct the Examiner's attention to the enclosed copy of the Information Disclosure Statement (IDS) filed January 9, 2004. Applicants have not received formal confirmation that the Information Disclosure Statement was considered. Applicants respectfully request the Examiner formally acknowledge the IDS in his next formal communication on the enclosed IDS.

The Examiner rejected claims 1, 2, 4, 7, 8, and 10-12 under 35 U.S.C. § 102(b) as anticipated by Barreras, Sr. et al. (U.S. Patent No. 5,735,887). The Examiner also rejected claims 1, 2, 4, 7, 8, 11, and 12 under 35 U.S.C. § 102(b) as anticipated by Schulman, et al. (U.S. Patent No. 5,531,774), and claims 3 and 10 under 35 U.S.C. § 103(a) as being unpatentable over Barreras, Sr. et al., and Schulman, et al., respectively, in light of the knowledge of one of ordinary skill in the art. Finally, the Examiner also rejected claims 1, 7, 8, and 10-12 under 35 U.S.C. § 103(a) as being unpatentable over Weijand, et al. (U.S. Patent No. 5,999,857), in light of the knowledge of one of ordinary skill in the art. Applicants respectfully traverse these rejections.

The Examiner argues that the capacitors of Weijand, Schulman, and Barreras perform the function of "a buffer

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capacitor", which the Examiner defines as "a capacitor that stores and provides energy." (Office Action, page 5.) Applicants strongly disagree with this statement, which if taken literally would allow for NO difference between different types of circuits, or different types of capacitors in a circuit, such as the power supply buffer capacitors of the current invention.

Applicants also strongly disagree with the Examiner's statement that the provided reference are of no relevance to the current application. The IEEE references cited in the last response (IEEE J. Solid-State Circuits, vol. 33, No. 7, pp. 947-955, July 1998) provide the standard definition of a "power supply buffer capacitor". The IEEE reference clearly indicates that the term "power supply buffer capacitor", as understood by one of ordinary skill in the electrical arts, is not arbitrary or general.

In fact, this reference confirms Applicants longstanding argument that the term "power supply buffer capacitor" refers to a capacitor that is directly coupled to either a power supply's or rectifier's DC outputs. In this way the "power supply buffer capacitor flattens the DC supply voltage suppressing or reducing any AC signal present. To accomplish this function the "power supply buffer capacitor" has to be relatively large as the voltage across the capacitor may drop due to high load but NEVER inverts. During operation, a load that the power supply cannot itself stably meet is provided by the "power supply buffer capacitor." Our claims require two such power supply capacitors, stating:

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"An electromedical implant . . . comprising . . . at least two power supply buffer capacitors . . . with one of the at least two power supply buffer capacitors for providing sufficient energy for the telemetry transmitter to transmit data, and . . . one of the at least two power supply buffer capacitors for providing sufficient energy for the telemetry receiver to receive data."

(Claim 1, underlining added for emphasis.)

In contrast, the secondary capacitors cited in each of the prior art references are all "tuning capacitors". These capacitors form a part of the resonant circuit that dissipates power provided by the power supply (including the single power supply buffer capacitor included in each circuit). These capacitors help create a varying electromagnetic field used for the actual transmission of data. Among other differences, the voltage across those capacitors inverts at a very high rate corresponding to the radio frequency used. In addition, these secondary capacitors are relatively small, and are not connected directly to the power supply outputs, and therefore cannot be "power supply buffer capacitors" as recited in the claims of the current invention.

Turning to the individual references:

Barreras

Capacitor 73, indeed is a "power supply buffer capacitor", as defined by the IEEE reference. However, the second capacitor identified by the Examiner (capacitor 105) is part of the resonant circuit being powered by the power supply. This capacitor dissipates power letting charge

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oscillate from one plate of the oscillator to the other, thereby creating a varying electromagnetic field. Hence, capacitor 105 does not provide power for the transmission of data, it dissipates power while transmitting data. The power dissipated by the resonant circuit is provided by the power supply and, in moment or high load, by the power supply buffer capacitor (capacitor 73), in no way does capacitor 105 serve the function of a "power supply buffer capacitor".

Schulman

The Schulman reference recites one capacitor which is an "energy storage capacitor", and a set of capacitors which are "capacitors which implement a parallel resonant circuit". The Examiner uses both types of capacitors to find the requisite "at least two power supply buffer capacitors" recited in the current claims. This is clearly an incorrect reading of the reference. Even by Schulman, et al.'s description the two types of capacitors are different. Indeed, Schulman, et al. describes only a single power supply 200 which supplies power from the received signal to all of the other functions including the receiver and transmitter. Nowhere, are independent power supply capacitors for each of the transmitter and receivers described or even suggested in the Schulman, et al. reference.

Weijand

Like in the Barreras reference, capacitors 12a and 12b of Fig. 2 are tuning capacitors, which are again part of

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the resonant circuit. The capacitors are used in an alternating manner to provide charge to the resonant circuit. This use and type of capacitor is not a power supply buffer capacitor and, again, totally irrelevant to the subject of the current claims.

Accordingly, none of Schulman, et al., Barreras, Sr. et al., nor Weijand et al. teach, disclose or even suggest an implant comprising a telemetry device "...at least two power supply buffer capacitors for providing sufficient energy for the telemetry transmitter to transmit data, and . . . for providing sufficient energy for the telemetry receiver to receive data", as required in claim 1, or "...wherein the telemetry transmitter is connected to one of the power supply buffer capacitors for transmitting data, and the telemetry receiver is connected to a separate one of the power supply buffer capacitors for receiving data", as required in claims 11 and 12, and therefore cannot anticipate, or make obvious, the claims of the current invention. Applicants strongly urge the Examiner to reconsider the references in light of the clear and well-known definition of "power supply capacitor" and the novel use of such capacitors in the electronic circuits of the current application.

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In view of the foregoing amendments and remarks, consideration and allowance of this application are respectfully requested.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

By 

D. Bruce Prout

Reg. No. 20,958

626/795-9900

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PATENT

## THE UNITED STATES PATENT AND TRADEMARK OFFICE

*I hereby certify that this correspondence is being deposited with the U.S. Postal Service as first class mail in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on January 9, 2004..*

  
Debbie Prout

Applicant : Michael Kraus, et al.  
Application No. : 09/603,812  
Filed : June 26, 2000  
Title : ELECTROMEDICAL IMPLANT  
  
Grp./Div. : 3762  
Examiner : George Robert Evanisko  
  
Docket No. : 39732/DBP/E43

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### INFORMATION DISCLOSURE STATEMENT AND CERTIFICATION UNDER § 1.97(e)(1)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Post Office Box 7068  
Pasadena, CA 91109-7068  
January 9, 2004

Commissioner:

In compliance with the duty of disclosure under 37 CFR §§ 1.56, 1.97 and 1.98, and in accordance with the provisions in the Manual of Patent Examining Procedure §§ 609 and 707.05(b), enclosed is FORM PTO\SB\08A\B with a listing of references that are known to applicant. Copies of each of the listed references are enclosed.

It is respectfully requested that these references be considered in the examination of this application and identified on the list of references cited on the patent issuing on this application. Applicant also requests that an initialed copy of said FORM PTO\SB\08A\B be entered in the application file and returned to applicant with the next communication from the Office in accordance with MPEP § 609.

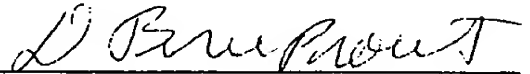
Applicant's undersigned attorney hereby certifies, in accordance 37 CFR § 1.97(e)(1), that each item of information contained in the information disclosure statement was first cited in any

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communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement.

Respectfully submitted,

CHRISTIE, PARKER & HALE, LLP

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DBP/djp

Enclosures: PTO\SB\08A\B w/references  
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FORM PTO/SB/08A/B (10-01)  
Substitute for PTO-1449A/B

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Attorney Docket Number

39732/DBP/E43

Application Number

09/603,812

Filing Date

June 26, 2000

Applicant(s)

Michael Kraus, et al.

Group Art Unit

3762

Examiner Name

George Robert Evanisko

**U.S. PATENT DOCUMENTS**

EXAMINER INITIALS	Cite No. <sup>1</sup>	DOCUMENT NUMBER Number - Kind Code <sup>2</sup> (If Known)	PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE
		4,166,470	09-04-1979	Neumann
		5,702,431	12-30-1997	Wang et al
		5,735,887	04-07-1998	Barreras, Sr., et al
		5,999,857	12-7-1999	Weijand et al

**FOREIGN PATENT DOCUMENTS**

EXAMINER INITIALS	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (If Known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup> (✓)
		WO91/16696	10-31-1991	Silvian	

**OTHER DOCUMENTS**

EXAMINER INITIALS	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article, title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
		Corresponding European Patent Office search report, dated December 4, 2003, for Application No. 00250200.3

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EXAMINER  
SIGNATURE

DATE  
CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.pto.gov](http://www.pto.gov) or MPEP 901.4. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English Language Translation is attached.

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